REMARKS

This application has been carefully reviewed in light of the Office Action dated August 4, 2008. Claims 1-12 and 17-22 remain in this application. Claims 1 and 17 are the independent Claims. It is believed that no new matter is involved in the amendments or arguments presented herein.

Reconsideration and withdrawal of the Final Office Action in the application are respectfully requested.

Interview Summary

Applicant thanks the Examiner for the courtesy of the telephone interviews conducted on October 29, 2008 and October 30, 2008.

As discussed during the interviews, Applicant submits that the claims are in condition for allowance. The substance of those interviews are summarized below.

Non-Art Based Rejections

Claims 1 and 17 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the phrase "in said granular substance" is asserted to be not found in the specification. Applicant respectfully traverses this assertion and submits that support for this phrase is found, inter alia, on page 6, lines 17-18 of the instant Specification.

Reconsideration and withdrawal of the above § 112 rejections are respectfully requested.

Art-Based Rejections

Claims 1-2, 5-7, 17-20 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 6,602,620 (Kikitsu); Claim 4 was rejected under 35 U.S.C. § 103(a) over Kikitsu in view of U.S. Patent No. 6,641,891 (Doushita); Claims 8-12 were rejected under § 102(b) as anticipated by or, in the alternative, under § 103(a) as obvious over Kikitsu in view of U.S. Patent No. 6,262,867 (Sano).

Applicant respectfully traverses the rejections and submits that the claims are allowable in light of the arguments below.

The Kikitsu Reference

Kikitsu is directed to a magnetic recording medium. Kikitsu discloses a diblock copolymer layer that is annealed to form a self-organized structure called a sea-island structure. A self-organized structure is employed that sets the volume ratio of the magnetic particles at 30% or less and the copolymer at 70% or more when the manufacture of a magnetic recording medium is completed (*See, Kikitsu, Abstract, Col. 18, lines 6 to Col. 19, lines 47*).

The Doushita Reference

Doushita is directed to a particulate, high density magnetic recording media (*See, Doushita, Col. 1, lines 5-6*).

The Sano Reference

Sano is directed to a thin film magnetic head and a disk storage system having a magnetic disk and the thin film magnetic head provided on a floating type slider. (*See, Sano, Abstract*).

The Claims are Patentable Over the Cited References

The present application is generally directed to a granular substance.

As defined by independent Claim 1, a granular substance is characterized by a matrix composed of a nonmagnetic insulating organic material and ferromagnetic metal particles dispersed in the matrix and having a mean particle size of 50 nm or less. The volume ratio of the matrix in the granular substance is in the range of 5 to 50%.

The applied references are not seen to disclose or suggest the above features of the claims of the present invention. In particular, the applied references are not seen to disclose or suggest "wherein the volume ratio of said matrix in said granular substance is in the range of 5 to 50%," as required by independent Claim 1 of the present invention.

Page 3 of the Office Action states that Kikitsu, Col. 18, lines 44-54, discloses "block copolymer volume ratio of 30 percent or less,... which would be within applicants range."

Applicant respectfully traverses this conclusion and contends that Kikitsu fails to disclose the above-mentioned features of amended independent Claim 1.

As noted above, Kikitsu discloses a diblock copolymer layer that is annealed to form a self-organized structure called a sea-island structure. Kikitsu employs such a self-organized structure and thereby sets the volume fraction of an island at 30% or less. In particular, polyisoprene sea-island structures are formed in the diblock copolymer during step (b) of the magnetic recording medium manufacturing method. The islands are dispersed within a polystyrene sea at the volume fraction of 30%. At this point in the process, 100% of the volume is non-magnetic copolymer comprised of 30% polyisoprene island and 70% polysterene sea. Then, in step (c), the polyisoprene islands are removed by etching (col. 19, lines 5-21). Next, in step (d), a magnetic layer is deposited into the etched island regions such that the magnetic layer is surrounded

by the polystyrene sea (col. 19, lines 22-32). Thus, magnetic particles are dispersed as islands in a volume ratio of 30% in a sea of non-magnetic substrate (col. 19, lines 41-46). Accordingly, the polystyrene sea of non-magnetic material comprises a volume ratio of 70%. Importantly, only after step (d) are there both magnetic and non-magnetic particles in the recording medium, in the ratio of 30% and 70%, respectively. At step (b), the recording medium is 100% non-magnetic.

In contrast, the present invention requires a volume ratio of nonmagnetic organic material to be in the range of 5 to 50%. Such a volume ratio enables exchange coupling between the ferromagnetic metal particles and soft magnetic properties are obtained (*See Specification; Pages 11 and 12*). As noted above, the Specification describes the volume ratio of the matrix as referring to the granular substance as a whole. For example, the Specification discloses on page 27, lines 11-13, a volume ratio of ferromagnetic metal particles of 80% and a volume ratio of the matrix of 20%. Accordingly, the volume ratio as defined by Applicant is understood to be the ratio between the volume of the metal or matrix to the total volume of the granular substance.

In sum, Kikitsu merely teaches a volume ratio of magnetic particles of 30% and a volume ratio of non-magnetic materials of 70% and not within 5 to 50%, as required by independent claims 1 and 17.

Accordingly, Kikistsu fails to disclose, teach or even suggest the above features of the claims of the present invention.

The ancillary Doushita and Sano references fail to remedy the above-discussed deficiencies of Kikitsu.

Since the applied references fail to disclose, teach or suggest the above features recited in independent Claim 1 of the present invention, these references cannot be said to anticipate nor render obvious the invention which is the subject matter of that claim.

Accordingly, independent Claim 1 is believed to be in condition for allowance and such allowance is respectfully requested.

Applicant respectfully submits that independent Claim 17 is allowable for at least the same reasons as those discussed in connection with independent Claim 1 and such allowance is respectfully requested.

The remaining claims depend either directly or indirectly from independent Claims 1 and 17 and recite additional features of the invention which are neither disclosed nor fairly suggested by the applied references and are therefore also believed to be in condition for allowance and such allowance is respectfully requested.

Conclusion

Applicant believes the foregoing amendments comply with requirements of form and thus may be admitted under 37 C.F.R. § 1.116(a). Alternatively, if these amendments are deemed to touch the merits, admission is requested under 37 C.F.R. § 1.116(b). In this connection, these amendments were not earlier presented because they are in response to the matters pointed out for the first time in the Final Office Action.

Lastly, admission is requested under 37 C.F.R. § 1.116(a) as presenting rejected claims in better from for consideration on appeal.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4721 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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